

## **Concept Monitoring Plan**

StarKist NPDES Permit AS0000019 Renewal

### **Main Points:**

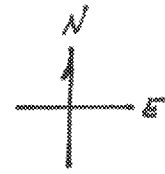
- 1) Accumulated water quality data indicates degraded conditions when waste load significantly beyond 2008 permitted effluent limitations.
- 2) StarKist requests effluent limitations for nitrogen above 2008 limits. All other parameters essentially in compliance today, and are achievable at 2008 limits.
- 3) “Uncertainty” is acknowledged with regard to acceptable effluent limits in order to maintain acceptable water quality.
- 4) Monitoring of receiving water (Pago Pago Harbor) best way to assess impacts of selected effluent limitations.
- 5) Present day monitoring program for Pago Pago Harbor does not provide adequate characterization of extent of waste plume impact. Today, enhanced monitoring program is recommended to characterize conditions.
- 6) If effluent limits are to be less stringent than 2008 limits, monitoring program must be enhanced.
- 7) Enhanced monitoring program proposed for 30 months (half of 5-year permit period).
- 8) Monitoring frequency increased to 3x annually.
- 9) Results evaluated end of 3rd year of permit period.
- 10) Enhanced monitoring program to include:
  - (a) transects through impacted region (3 for best coverage)
  - (b) existing station at diffuser (14)
  - (c) existing stations in vicinity of diffuser (8 & 8A)
  - (d) new stations mid-way between diffuser and edge of mixing zone (also existing sta 15)
  - (e) new stations at edge of mixing zone (also existing sta 16)
  - (f) at least 1 new station beyond edge of mixing zone along each transect
  - (g) vertical profiles for dissolved oxygen at all stations
  - (h) samples at 5 depths, all stations, for total nitrogen, total phosphorus, total suspended solids.
- 11) Concept sketch below.

25 Sept 2018

Concept Plan:

Additional Monitoring  
to Better Characterize  
Plume and Dissolved  
Oxygen (DO) Conditions

Aua



Pago Pago

Harbor

Plume (?)

